

## REMARKS

It is respectfully submitted that no new issues requiring further detailed consideration or search have been presented by the proposed amendments and that entry of the claim amendments is appropriate under 37 C.F.R. § 1.116. Entry of the amendment at least for purposes of appeal is respectfully requested in view of the fact that they present rejected claims in better form for consideration on appeal (37 C.F.R. 1.116).

### 1. In the Claims

As indicated above, the claims have been amended to be in better condition for appeal. Specifically, claim 18 has been amended to simplify the description of the various features recited therein on the basis of the following three particulars.

First, the paper layer is recited without the language related to the paper being useful for producing documents of value. Second, the description of the coating is no longer qualified with language such as "for improving the durability of the paper layer" and "so as to be at least partially exposed." Third, the coating is now described with the closed-ended term "consists" as opposed to the open-ended term "comprises." By using such closed-ended language, the coating is precluded from having any elements outside from those described in claim 18. As a result of the amendments, the coating is now recited as consisting a composition lacking a filler substance and including an acrylate system as the sole binder.

Through the amendments to claim 18, this claim has been reduced to its core constituents of which the Applicants assert the combination thereof is patentable over the cited prior art references. *It is submitted that the changes to this claim do not introduce new issues which require further consideration and searching since the existing features of claim 18 have been present in this claim generally since its inception and also in originally-filed claim 1 to which claim 18 corresponds.* If anything, this current amendment simplifies the scope of claim 18 due to the usage of the closed-ended language "consists."

Claims 29 and 30 include amendatory language similar to the language found in currently amended claim 18. The reasons for the amendments in these claims are likewise the same reasons as those used in the amendment of claim 18.

Claims 35 through 45 have been canceled without prejudice or disclaimer in order to remove issues for appeal.

New claim 46 represents both original claim 3 and renumbered claim 20, the subject matter of which is reinstated herein pursuant to MPEP 714.24 in a new claim with a new number. Since the subject matter of claim 46 was most recently incorporated into claim 18 and furthermore was present in the claims as originally-filed, the reinstatement of claim 3 does not raise new issues requiring further searching or additional consideration since it is presumed that the Examiner has fully searched this subject matter.

*It is desired that the amendments to the claims and new claim 46 be entered so that appeal may be directed to the core constituents of the present application as recited in these pending claims.*

*Pursuant to MPEP 714.13, the Examiner is requested to indicate the status of each claim proposed in the amendment, and which of the proposed claims would be entered on the filing of an appeal. Moreover, the Examiner is requested to notify the Applicants if certain portions of the amendment would be acceptable as placing some of the claims in better form for appeal.*

## 2. Overview of Prior Art Rejections

As is well established, the Applicants may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. The foundation upon which the Examiner builds his arguments in each set of rejections is that since the cited prior art references recite parts of the coating composition of the pending claims of the present application and do not specifically exclude certain

composition constituents, the coating composition of the present application is obvious.

It is understood that rejections under 35 U.S.C. § 103 must rest on a factual basis within prior art references and these facts should be interpreted without hindsight reconstruction of the invention from the prior art. The Examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection.

It appears to the Applicants that the Examiner has resorted to the very speculation, unfounded assumption or hindsight reconstruction to supply deficient teachings in the prior art as a basis for teachings of the negative limitations of the pending claims. In that regard, it is the Applicants' opinion that the cited prior art references would not have provided any suggestion or motivation to a skilled artisan to make the coating composition having the specific limitations of the pending claims.

The Applicants are at a loss as to how the absence of teachings in the prior art references may be used against the pending claims of the present application. In order to justify a rejection based on obviousness, the Examiner has the burden to present evidence within the prior art that must expressly or impliedly teach or suggest the claimed invention to modify the reference or combine reference teachings. Moreover, the prior art reference, as a whole, must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art references themselves, and not based on the Applicant's own disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

A prevailing issue that will be discussed in response to the pending rejections stems from the basic lack of evidence that has been provided to support the assertions that the pending claims are obvious in view of the cited prior art. It is the Applicants' contention that the Examiner has failed to present sufficient evidence in

the prior art references of the negative limitations and specific constituents of the claimed composition of the pending application. Moreover, it appears that the Examiner has completely ignored the significant benefits that are obtained from the claimed composition, and these benefits are clearly not obtained by the prior art references due to constituents provided in the coating compositions thereof.

*The Applicants respectfully request the Examiner to specifically address the issues discussed herein in the event that the Applicants appeal the final rejection of the pending claims.*

3. Rejection of claims 18-19, 21, 23, 26-28 and 35 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,871,833 (Henbo et al.)

Claims 18-19, 21, 23, 26-28 and 35 presently stand rejected in view of the disclosure of Henbo et al. This rejection is respectfully traversed on the basis that the Henbo et al. disclosure fails to disclose or suggest the security paper embodiment recited claim 18 of the present application, and therefore does not render the method of claim 18 obvious. Claims 19, 21, 23, 26-28 and 35, which depend directly from claim 18, are thus patentable based on their dependency from claim 18 and their individually recited features.

In the outstanding Action, the Examiner provided a response to the Applicants' remarks in the reply of April 14, 2004. The Applicants assert that the Examiner is incorrect in the counter arguments provided in the "Response to Arguments" in the outstanding Action. It appears that the reasoning is based on the Applicants' own disclosure and the Examiner seems to have confused a failure of the Henbo et al. disclosure of not explicitly excluding specific constituents in a composition as a positive teaching to such effect.

The Applicants submit that the Henbo et al. disclosure fails to expressly or impliedly teach or suggest each and every element of the method of claim 18 since the Henbo et al. disclosure fails to teach or suggest the basic coating composition,

and the dirt repellent surface, and possess the basic advantages of the coating composition of claim 18. The following observations will address each of these three shortcomings of the Henbo et al. disclosure.

a. Composition

Turning to the composition of the engraving coating layer of Henbo et al., it is readily evident that the composition of the engraving coating layer of Henbo et al. is different from the coating layer recited in claim 18 of the present application. In the Action, column 5, lines 4 through 24 are relied upon in the Henbo et al. disclosure as describing the composition of the coating of claim 18. In the selected passage, the Henbo et al. explicitly describes the engraving layer as "comprising a binder resin...and fine inorganic powder in an amount of from 80 to 50% by weight on a solid basis." (column 5, lines 4-7). Henbo et al. also describe preferred binders as being synthetic polyester or polyurethane resins (column 5, lines 15-24). Moreover, the fine inorganic powder basically serves as a filler, and preferably includes titanium dioxide (column 5, lines 4 to 8; lines 25 to 30; lines 37).

While it is true that acrylates are mentioned as coating constituents in the coating composition of Henbo et al., there is simply no disclosure to the effect that acrylates constitute the sole binder and that fillers are excluded from the composition. This is a fundamental feature of claim 18 that is simply not taught or suggested by the Henbo et al.

The statement that the examples are non-limiting is not equivalent to an explicit or implied teaching, and thus silence as to a particular limitation essential to a claimed invention does not constitute a teaching of the prior art. As is well established, the prior art must teach or suggest each and every claim limitation, even if the claim limitation is a negative limitation. It was argued in the Examiner's response to the Applicants' arguments in the Action that the examples of the Henbo et al. are not limiting. While the Applicants generally agree with this basic assertion, the examples provided by the Henbo et al. disclosure are representative of the

teachings of the patent itself, and constitute preferred embodiments of the claimed invention of Henbo et al. Nowhere does the Henbo et al. disclosure provide a teaching of specifically excluding certain constituents of a coating composition, while including other certain constituents.

The Examiner has not provided sufficient evidence to support an argument that the mere non-disclosure in the Henbo et al. disclosure of a composition coating consisting a composition lacking a filler substance, and including an acrylate system as the sole binder results in a teaching available to a skilled artisan. Furthermore, there is no finding as to the specific understanding or principle within the knowledge of the skilled artisan that would have provided the motivation to use or make the claimed composition of claim 18. On the contrary, the Henbo et al. disclosure teaches coating compositions containing preferably polyester or polyurethane, and containing filler pigments such as titanium dioxide, while it will be pointed out that the specification of the present application specifically identifies titanium dioxide as a filler that is wholly undesirable in the composition of the binder (page 2, lines 2-4).

There is no explicit or implied teaching of the desirability of a coating composition devoid of a filler substance in the Henbo et al. disclosure. In order to have shown obviousness, the Henbo et al. disclosure would need to provide a teaching wherein a filler is precluded from a coating composition. This teaching is simply lacking in the Henbo et al. disclosure.

Since the Henbo et al. disclosure fails to meet the limitations of claim 18, the Henbo et al. disclosure cannot be modified to reject this claim without some additional evidence to cure the deficiency noted above. The Examiner has not provided sufficient evidence.

The Applicants submit that there is no suggestion in the disclosure of Henbo et al. that would motivate one of ordinary skill in the art to provide a security paper arranged with a coating having the composition recited in claim 18 of the present application. On the contrary, Henbo et al. clearly describe additives and constituents

which are excluded from the coating composition of the present application and therefore the Henbo et al. disclosure would not convey to a skilled artisan the understanding and underlying principles to make the coating of claim 18.

b. Dirt Repellant Surface

In the Action, the Examiner indicates that although the Henbo et al. disclosure does not explicitly disclose a dirt repellent surface, the coating composition keeps dirt from forming on the paper. This assertion by the Examiner is respectfully contested by the Applicants since it is generally known that there are many materials which rather attract dirt than repel dirt. As an extreme example, one might consider an adhesive coating which certainly will not keep dirt from forming on the coated substrate.

Turning to the purpose of the invention described by Henbo et al., this disclosure provides a fretwork paper that overcomes the drawbacks of known fretwork papers such as the development of burrs upon engraving and rumpling of the paper during paper feed or discharge during use. Henbo et al. teach the use of providing a stretched laminate as a support layer (column 2, lines 19-23). The Applicants would like to reiterate that there is nothing to suggest that the engraving coating layer is to be provided as a dirt repellent surface and it is abundantly clear that the Henbo et al. disclosure does not focus on the problem of improving durability of security papers or documents of value.

The Examiner's basis for arguing that there is an implied teaching of the desirability of a dirt repellent coating used in the fretwork paper of Henbo et al. is clearly incorrect. Moreover, the Examiner has failed to provide any evidence which would tend to motivate a skilled artisan to provide the fretwork of Henbo et al. with a dirt repellent surface, as recited in claim 18 of the present application.

Accordingly, the Henbo et al. disclosure fails to disclose or suggest providing a dirt repellent coating, as currently recited in claim 18 of the present application.

c. Advantages of the Coating of Claim 18

As indicated previously in the Applicants' remarks on June 27, 2002, the advantages of the coating of the present application provides significant advantages over known coatings.

The coating of the present application is processed so as to protect the security paper and therefore extend its circulation life. Essential to the properties of the coating is that the coating does not alter the printability, sound and color of the present invention (see specification: page 1, lines 7 to 5 from the bottom).

In the present application, the coating is formed from a composition containing only a binder. The composition does not include any fillers or polyurethane. It has been found that a binder composition without fillers has superior wetting properties and forms a complete surface film over the fibers of a security paper (see specification: page 2, first paragraph).

Surface coatings based on polyurethane, such as those used in the Henbo et al. disclosure, are not satisfactory for use in regards to printing properties and surface hardness of security articles. Furthermore, coatings based on polyurethane require large amounts of solvent. In the present invention, the addition of polyurethane was avoided so that the composition of the coating excluded both fillers and polyurethane. The composition of the present invention provides for improved printed properties and contains substantially less solvent so that its processing has a lower environmental impact.

In view of the observations on the engraving coating layer composition of Henbo et al., The Applicants cannot understand how the teachings of Henbo et al. can be construed to suggest to one of ordinary skill in the art to make the dirt repellent coating of claim 18. Accordingly, it is respectfully submitted that indeed the disclosure of Henbo et al. does not disclose nor suggest the coating composition of claim 18 of the present application.

The Applicants submit that there is no suggestion in the disclosure of Henbo et al. that would motivate one of ordinary skill in the art to provide a security paper arranged with a coating having the composition recited in claim 18 of the present application. On the contrary, Henbo et al. clearly describe additives and constituents of compositions which are clearly excluded from the coating composition of the present application.

In summary, the Applicants have carefully considered this rejection but it is most respectfully traversed for the reasons discussed above. Accordingly, the Applicants respectfully request reconsideration of the rejection and the withdrawal thereof.

4. Rejection of claims 22, 24-25 and 38-40 as being unpatentable over U.S. Patent 5,871,833 (Henbo et al.) in view of U.S. Patent 4,943,093 (Melling et al.)

Claims 22, 24-25 and 38-40 presently stand rejected as being obvious in view of the Henbo et al. and Melling et al. disclosures. Applicants submit that the Melling et al. disclosure fails to make up for the basic shortcomings of the Henbo et al. disclosure described above in reference to claim 18. Claims 22, 24-25, which depend directly from claim 18, are patentable based on their dependency from claim 18 and their individually recited features. As indicated above, claims-40 have been canceled.

In observing the disclosure of Melling et al., it is clear that this disclosure relates to a security paper that includes a metallized security device, such as a metallized strip or thread, which has a coating thereon. Of particular importance is that the security paper itself is not provided with a coating, but instead the coating is described as providing the security device with additional visual effects (column 1, line 61 through column 2, line 60). Accordingly, Melling et al. do not teach nor suggest coating at least one surface of security paper with a coating.

It is clear from the Melling et al. disclosure that there is no disclosure or suggestion of the inventive coating of the present application. Instead, Melling et al. merely disclose a security device having a coating that provides visual effects.

Hence, the proposed combination of the Henbo et al. and Melling et al. disclosures, whether considered collectively or individually, fail to disclose or suggest the claimed security papers recited in claim 18 of the present application. The claims dependent from claim 18 are thus patentable based on their dependency from claim 18, and their individually recited features. Withdrawal of this rejection is respectfully requested.

5. Rejection of claims 29-34 and 36-45 as being unpatentable over U.S. Patent 5,817,205 (Kaule) in view of U.S. Patent 5,871,833 (Henbo et al.)

Claims 29-34 and 36-45 presently stand rejected in view of the combination of the Kaule and Henbo et al. disclosures. As was indicated above, claims 35-45 have been canceled. This rejection is traversed on the grounds that the disclosure of Kaule fails to disclose or suggest the documents of value, security paper and methods recited in claims 29-34 of the present application. The Henbo et al. disclosure fails to make up for the shortcomings of the Kaule reference.

The Kaule disclosure describes a method for making a data carrier that includes a surface portion corresponding to an optically variable element that is smoother than the remaining surface of the data carrier. It will be noted, however, that the Kaule disclosure does not contain a description nor a suggestion concerning the application of a dirt repellent surface coating to the data carrier described therein.

According to the teachings of Kaule, the paper is adapted to the smoothness required for the optically variable element by local glazing in the surface area intended for the optical element (column 4, lines 36-40). Glazing is performed by pressing the paper fibers together irreversibly (column 7, line 66 through column 8,

line 1), or by coating (column 8, line 53). The coatings consist of binders and of mineral pigments in the micrometer range (column 5, lines 8-12).

It is well understood that the coatings described by Kaule are not capable of repelling dirt or improving the durability of security paper, but instead improve the acceptance of optically variable security elements.

According to column 5, line 62, the Kaule disclosure indicates that protective layers may be applied. While it is true that the coatings according to the present invention are "protective coatings," the Kaule disclosure does not provide any teachings regarding the nature, composition or specific properties of the "protective layers" described therein.

The Examiner has provided no passage wherein the Kaule disclosure expressly or impliedly conveys the understanding or principle that the coating should lack both polyurethane and a filler substance. Such evidence of this teaching, as is well understood, must be provided in order to justify rendering the above-identified claims obvious in view of the Kaule disclosure. As clearly discussed above, a prior art reference must disclose or suggest a negative limitation in order to qualify as evidence of a teaching that would motivate a skilled artisan to make the claimed composition. In the absence of a specific teaching as to the exclusion of a filler substance and an acrylate system as a sole binder in a protective surface coating, the Applicants submit that the Kaule disclosure does not render the coating of the present application obvious.

*The Applicants hereby request the Examiner to present sufficient evidence within the Kaule and Henbo et al. disclosures themselves that demonstrate the specific understanding to a skilled artisan of providing a surface coating consisting of a filler substance and an acrylate system as a sole binder to make a dirt repellent surface.*

It is well understood that obviousness cannot be established by combining references without providing evidence of the motivating force which would impel one

skilled in the art to do what is disclosed in the Applicants' application. In view of the above-observations on the disclosure of Henbo et al., and the following observations of the Kaule disclosure, it is respectfully submitted that these references, whether considered collectively or individually, fail to teach or suggest the embodiments of claims 29-34 of the present application.

Therefore, withdrawal of the rejection is respectfully requested.

6. Conclusion

In view of the amendment to the claim 18, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that claims 18, 19, 21-34 and 46 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicants' Attorney, the Examiner is invited to contact the undersigned at the numbers shown below.

BACON & THOMAS, PLLC  
625 Slaters Lane, Fourth Floor  
Alexandria, Virginia 22314-1176  
Phone: (703) 683-0500

Date: September 21, 2004

Respectfully submitted,



JUSTIN J. CASSELL  
Attorney for Applicants  
Registration No. 46,205